

### **Corrigendum-II**

Bihar Medical Services and Infrastructure Corporation Limited (BMSICL) had invited E-Bids from the interested parties for Procurement, Rate contract, Supply, Installation of Medical Equipment vide Tender No.-BMSICL/2022-23/ME-300. During Pre-bid meeting various suggestions were received from different prospective bidders regarding amendment in technical specification of equipment which were discussed and deliberated on by the experts. On the basis of their recommendations certain amendments in the technical specification of the equipment have been made which are annexed as **Annexure-I** of this corrigendum. Rest of the terms and conditions of the NIT shall remain unchanged. In order to facilitate maximum participation of bidders tender schedule is being revised as following:-

Tender Reference No.	<b>BMSICL/2022-23/ME-300</b>
Date and time for downloading of bid document	<b>Up to 15<sup>th</sup> February 2023 till 17:00 Hrs.</b>
Last date and time of submission of online bids	<b>16<sup>th</sup> February 2023 till 17:00 Hrs.</b>
Last date and time of submission of original documents of EMD, Tender Fee and Document.	<b>17<sup>th</sup> February 2023 till 14:00 Hrs.</b>
Date, Time and Place of opening of Technical Bid	<b>17<sup>th</sup> February 2023 (at 15:00 Hrs.) on the website of <a href="https://eproc2.bihar.gov">https://eproc2.bihar.gov</a> in the office of BMSICL</b>
Date and time of opening of financial Bids	<b>To be announced later on <a href="https://eproc2.bihar.gov">https://eproc2.bihar.gov</a></b>

**SD/-  
GM (Procurement)  
BMSICL**

### Annexure-1

Name of Equipment - Refrigerated Centrifuge		
Sl. No	Technical Specification as per tender	Proposed Amendment
1	For separation of blood components like cells, platelet rich plasma platelet concentrate plasma.	No Change
2	Microprocessor controlled system to make operation automatic.	No Change
3	Programmable memory: memory with tamper proof facility.	No Change
4	Stainless steel chamber: Easy to clean, corrosion resistant with provision of both drain and condensed water collection container.	No Change
5	CFC free refrigerant.	No Change
6	Swing bucket blood bank with metal buckets: 6 x 2000ml. wind. Shielded suitable adapters for 12 blood bags of 350ml. & 450ml.	No Change
7	Removable plastic adaptors to hold double /triple/quadruple blood bags with partition in every adaptor and with provision to hold balancing weight at the sides of adaptor so that it may not come in contact with blood bags.	No Change
8	Insert with hook adapter to spin buffy coat or small volume of blood and with provision to hold balancing weight at the sides of adaptor so that it may not come in contact with blood bags. Balancing weights should be supplied with each plastic insert.	No Change
9	Equipped with automatic lid lock and lid interlock.	No Change
10	Centrifuge force 5000-6000 g.	No Change
11	Speed variation Microprocessor controlled rotor speed to within 10rpm of set value Acceleration and deceleration profiles shall be available.	No Change
12	Temperature Control range – 20degree C to + 40degree C. Minimum temperature at maximum speed at full load of 12 quadruple blood bags of 450ml, should be $\leq 4^{\circ}\text{C}$ .	No Change
13	Micro Processor controlled rotor temperature within 1degree C of set temperature regardless of the centrifuge speed.	No Change
14	Programmable time: 0 to 99 hrs with minimum resolution of 1 minute.	No Change
15	Digital display of temperature speed and time Minimum no of 3 digit resolution.	No Change
17	Power requirement 220/240 volts, 50 Hz single phase AC supply.	No Change

18	The equipment shall be suitable for operation from 0 to 40degree C at 90% Relative humidity Electronic circuitry shall be tropicalized for this ambient condition.	No Change
19	Noise levels within 60 decibels.	No Change
20	The equipment shall have lockable castors.	No Change
21	Protection of data in event of power interruption or complete failure data should remain stored.	No Change
22	Should have a provision for external connectivity.	No Change
23	It shall have a security lock to prevent unintentional switch off and also unauthorized opening of the equipment.	No Change
24	Automatic Line voltage corrector/ voltage Stabilizer. A line voltage corrector of appropriate rating should from part of standard configuration. Copper wound single phase automatic line voltage corrector conforming to IS 9815(pt.I)/94 with latest amendments or equivalent international standards fitted with a voltmeter and switch to indicate output/input voltage as under:	No Change
i	Capacity/ rating 10 KVA As per the requirement of the equipment.	Suitable Capacity UPS, having Backup not less than 30 minutes
ii.	Input voltage 140 to 280 volts, 50 cycles.	No Change
iii.	Output voltage:220 volts +- 10% volts input – output voltmeter and ampere meter protection high-low voltage cut off. Over load and short circuit protection.	No Change
iv.	The equipment should be supplied with 2 meter cord at input and fitted with plugs of appropriate rating (15Amp)	No Change
v.	Make of the line voltage corrector shall be indicated.	No Change
25	Certification	No Change
i.	US FDA / European CE Approved model should be offered.	US FDA / European CE (Issued by notified body) Approved model should be offered.
ii.	Electrical safety: Equipment meets electrical safety specification such as that of IEC 61010.Safety requirements for electrical equipment for measurement, control and laboratory use IEC 61326-Electromagnetic Compatibility and IEC 60529 Degrees of protection provided by enclosure with protection level of IP 20 or battery level. All the IEC certificates to be issued by European third party.	No Change

26	The date of opening of price bid will be decided after live demonstration. For technical evaluation live demonstration (at full load of 12 bags) of Refrigerated Centrifuge will be taken in a government blood bank to demonstrate technical specification with all accessories as per tender specification and actually showing component separation with required quality as per NACO/AABB guide lines. The parameter like speed, timer and temperature to be verified with calibration tools like tachometer, Timer and temperature probe respectively. The tools should have traceability of NABL standards with valid certificates.	No Change
<b>Name of Equipment - Dielectric Tube Sealer (Portable Battery operated sealer)</b>		
1	Dielectric Tube Sealer, Handheld	No Change
2	Purpose of Equipment: handheld Blood Bag Tube Sealer is a compact handheld equipment to seal the Blood Bag pilot PVC tubing by transient radio frequency heating and sealing, with no haemolysis.	No Change
3	Should gently seal tubing with no haemolysis, using radiofrequency heating.	No Change
4	Should be capable of making wide seal of at least 6 mm width.	No Change
5	Should have a carrying case (Optional)	No Change
6	Electrodes should be well protected by a cover to prevent blood splutter.	No Change
7	Sealing trigger is not automatic. Lever to press manually and then only seal.	No Change
8	Should have indicator lamp for sealing process.	No Change
9	No warm up time should be required.	No Change
10	Should have tear-seal feature to make segment that can be easily separated by hand.	No Change
11	No. of seals per charge should be more than 1000 continuous seals from a fully charged battery.	No. of seals per charge should be more than 200 continuous seals from a fully charged battery.
12	Charger should be compatible with input voltage: 240V 50Hz Single phase Ac.	No Change
13	US FDA/European CE Approved model should be offered.	US FDA/European CE (Issued by Notified Body) Approved model should be offered.
<b>Name of Equipment - Dielectric Tube Sealer (Table Top)</b>		
1	Blood bag tube sealer is a compact equipment to seal the Blood Bag pilot tubing.	No Change
2	The system should be heavy duty and be able to seal the blood bag etc. quickly and effectively.	No Change
3	Should be simple to handle.	No Change

4	System should gently seal the tubing with no hemolysis using radio frequency.	No Change
5	Should be capable of making wide seal of 6mm thickness.	No Change
6	Should be for bench top use.	No Change
7	The sealing time should not be more than 2 seconds.	No Change
8	Lever to press manually for sealing trigger.	No Change
9	Should also have extended portable hand unit sealing, hand should be with coaxial cable of 1.5 to 2.0 meter. <b>(It is Optional)</b>	Deleted
10	Should have indication lamps for sealing process “on handle as well as main unit.	Should have indication lamps for sealing process on main unit.
11	No warm-up time should be required.	No Change
12	Should ensure easy separation of tube segments after the sealing.	No Change
13	Back up battery should seal more than 500 seals on PVC. Tubes in continuous mode. <b>(It is optional)</b>	Back up battery should seal more than 200 seals on PVC Tubes in continuous mode.
14	The unit shall be capable of operating continuously in ambient temperature of 10-40 degree C and relative humidity of 15-90%.	No Change
15	Power input 220V -240V/50Hz AC single phase or 380-400V AC 50Hz. Three phase fitted with appropriate Indian plugs and sockets.	Power input 220V -240V/50Hz AC single phase with appropriate Indian plugs and sockets.
16	Suitable Auto voltage corrector with spike protector or SMPS (Switched Mode Power Supply) should be available.	Suitable Auto voltage corrector with spike protector should be Provided.
17	US FDA/ European CE (Issued by a notified body) approved Model should be offered.	No Change
<b>Name of Equipment -Platelet Incubator with Agitator</b>		
i.	Purpose of Equipment: To continuously agitate platelet concentrates in an incubator in an even suspension in a plasma bag.	No Change
ii.	Type of Equipment: Flatbed agitator fitted inside a temperature- <b>controlled</b> incubator operating with CFC-free refrigerant gas and insulation material	No Change
iii.	Certifications	No Change
iv.	US FDA / European CE Approved model should be offered.	US FDA / European CE (Issued by notified body) Approved model should be offered.
v.	Electrical Safety: Equipment meets electrical safety specifications such as that of IEC (Class I)	No Change
<b>A.</b>	<b>Platelet Incubator</b>	
1	Should have a provision to store the agitator.	No Change
2	Should have a single transparent outer door for clear visibility.	No Change

3	Should be able to maintain a temperature of 22±2°C, Set temperature of 22°C.	No Change
4	Should have a digital temperature indicator.	No Change
5	Seven day inkless chart recorder with battery back-up for minimum of 2 hours for continuous operation during power failure, agitator off, power failure, compressor and system	No Change
6	Single digital temperature sensor for both recording and controlling	No Change
7	Should have audible visual high/low alarm for temperature control, battery on/low, sensor	No Change
8	Should have forced air circulation method for the uniformity of the temperature at all sides of the incubator.	No Change
9	Chamber mounted electrical outlet for agitator should be available	No Change
10	Power supply: 220-240 volts at 50 Hz.	No Change
11	Facility to connect with central (temperature) monitoring system	No Change
12	Facility of Graph display.	No Change
13	Should be provided with Servo Voltage Stabilizer.	Should be provided with Separate Servo Voltage Stabilizer.
B.	<b>Platelet Agitator:</b>	
i.	Construction:	No Change
ii.	Internal : Stainless steel (min 304 grade)	No Change
iii.	External : Corrosion Resistant, at least 1mm thickness	No Change
iv.	Capacity: Designed to hold random platelet packs or aphaeresis platelet packs or a mixture of both types (minimum 48 random platelet concentrate packs).	No Change
v.	Design of Shelves: Shelves are made of non-slip, corrosion resistant material, Coated with bacteria resistant material, perforated to ensure air circulation and with sufficient clearance to minimize noise.	No Change
vi.	Gentle side to side agitation at 3.6-4 cm side to side, 60-70 strokes/ minute	No Change
vii.	Heavy duty ball bearing gear motor for noise less and continuous operation for 24 hours a day throughout the year	No Change
viii.	Motor with internal fan	No Change
2	Temperature	No Change
i.	7 days chart recorder with free charts till warranty period.	7 days chart recorder with free charts /Digital Recorder till warranty period.
ii.	Temperature controller with sensor	No Change

3	Safety feature	No Change
i.	Audio alarm for temperature fluctuation	No Change
ii.	Auto stop for agitation when the door is opened	No Change
iii.	Power failure alarm	No Change
4	Push buttons switch with pause function for temporary stoppage of the motion.	No Change
5	Power supply: 220-240 volts at 50 Hz.	No Change
<b>Name of Equipment - Apheresis Machine</b>		
1	Continuous Flow Blood Cell Separator.	No Change
2	Dual/single Needle operation.	No Change
3	Built in automated protocols for majority (4 of 6) of the below procedures.	No Change
a	Leukoreduced Plasma Collection	No Change
b	Therapeutic Plasma Exchange.	No Change
c	Single or double RBC collection and/or RBC Exchange	No Change
d	Peripheral Blood Stem Cell Collections	No Change
e	Granulocyte Collection.	No Change
f	Leukoreduced platelet collection or plateleapheresis	No Change
4	Automatic Pump Loading & Priming of disposables sets.	No Change
5	Automated Self-test to ensure maximum Donor Safety.	No Change
6	Automatic Leukoreduction validation of platelets and plasma at the end of procedure.	No Change
7	Adjustable product concentration	No Change
8	Separate Anticoagulation pump with custom programming adjustability	No Change
9	Safety-check to prevent Platelets count dropping below safety level for Donor safety.	No Change
10	Configurable maximum volume depletion levels either by weight or percentage of Total Blood Volume	No Change
11	Extracorporeal volume less than 250 ml.	No Change
12	Built in Access & Return Pressure sensor.	No Change
13	Built in air detectors to prevent air embolism	No Change
14	Built in ACD Detector.	No Change
15	Built in contamination monitor for monitoring & preventing RBC contaminations in platelet collection and plasma exchange.	No Change
16	Audio visual alarms.	No Change
17	Periodic Instrument Calibration certificate for the various parameters and QC of the products should be provided/maintained by the vendor.	No Change



18	USFDA 510(K) / European CE (issued by notified body) certified approved Model should be offered.	No Change
19	Power Supply 220VAC +/- 10 %, 50Hz.	No Change
20	Online UPS of suitable rating with voltage regulation, spike protection and maintenance free batteries for 60 minutes back up.	No Change
21	Cost of 500 (Five hundred) EACH test of Platelet kit & Plasma Exchange kit along with the price of startup and shut down consumption of reagents and other Reagents (Cleaner/Washer/Diluent /Kits /Calibrator, QCs (Positive control and Negative control required daily) /Tips required /Any other accessory required for the above parameters according to the mentioned number of tests must be quoted in BOQ / Financial Bid and the rate will be frozen for next 5 years from the rate contract done. L-1 will be decided on considering unit price of the equipment and Cost of 500 (Five hundred) for each test as listed above along with their all consumables to perform those tests.	No Change
22	As a startup kit, 50 no's (fifty) test of Platelet kit & 10 no's (Ten) of Plasma Exchange kit along with all consumables of reagents and other Reagents (Cleaner/Washer/Diluent /Kits /Calibrator, QCs (Positive control and Negative control required daily) /Tips required /Any other accessory required for the above parameters must be supplied complementary at the time of installation and commissioning.	No Change
<b>Name of Equipment -Plasma Separator</b>		
1	It should be suitable to extract blood components like plasma, Platelets from collection container.	It should be suitable to Express blood components like plasma, Platelets from collection container.
2	It should be manual operated & accept all kinds of blood bags.	No Change
3	Front panel should be spring loaded to exert uniform pressure on container i.e. blood bag so that fluid can be transferred.	Front panel should be spring loaded to exert uniform pressure on container i.e. blood bag so that fluid can be Expressed out.
4	Compression plate should be made of transparent acrylic material & should be durable	No Change
5	It should be non-corrosive & can be cleaned easily with antiseptics.	No Change
6	US FDA/ European CE (Issued by a notified body) approved Model should be offered.	US FDA/ European CE (Issued by a notified body) approved Model should be offered.
<b>Name of Equipment -Deep Freezer (-80 degree)</b>		



1	Should have galvanized steel body with epoxy paint/HDGI sheet-Power coated and vacuumed polyurethane foam panels, outer double/single door with locking facility.	No Change
2	Should have alarm for audible and visual fault acknowledgement, high and low temperature audio visual alarms, open door alarm, and power failure alarm.	No Change
3	Castor wheels should be provided.	Castor wheels should be provided with lock.
<b>4</b>	<b>Capacity:</b>	
i	Total storage capacity of 32 bags of 250ml plasma bags	Total storage capacity of 300 bags of 200ml plasma bags or more.
<b>5</b>	<b>Refrigerant:</b>	
i	AFC free or HCFC free refrigerants with Biodegradable oil Compressor	No Change
<b>6</b>	<b>Cooling System:</b>	
i	Cascade Cooling system	No Change
ii	It should have 2 stage compressors with standard refrigerants.	No Change
iii	Should have two compressors sealed with high grade seal.	No Change
<b>7</b>	<b>Doors:</b>	
i	Single outer door foaming insulated with patent technology, left hinged, main door with CAM lock	Single outer door foaming insulated with patent technology, left hinged, main door with CAM lock
<b>8</b>	<b>Inner Compartment:</b>	
i	Minimum 3 compartments with independent doors <b>(304 SS)</b>	No Change
<b>9</b>	<b>Temperature:</b>	
i	LED Display, temperature sensor probe (PT100)	No Change
ii	Programmable temperature range at least minimum -80 degree Celsius in increment of 0.1 degree celsius	No Change
iii	Range -55 to 80 degree celsius, uniformity $\pm 3^{\circ}$ celcius	No Change
<b>10</b>	<b>Additional accessories:</b>	
i.	SS Racks and SS cassates to be provided.	Deleted
ii.	System monitoring and reporting technology systems built-in for diagnosis or set point variants	No Change

iii	System should have provision for software to control and monitor upto 30 freezers simultaneously. <b>(It is Optional)</b>	Deleted
iv.	<b>Noise level</b> <70DB	No Change
v.	Servo Stabilizer 5KVA to be provided.	Servo Stabilizer of Suitable Capacity to be provided.
vi.	Continuous temperature monitoring facility and temperature chart that can be replaced weekly.	No Change
vii.	Temperature chart paper with pen should be provided.	No Change
<b>11</b>	<b>Power Supply</b>	
i	230 volt/50-60HZ	No Change
<b>12</b>	<b>Power Consumption:</b>	
i	Power consumption as required.	No Change
ii	Voltage stabilizer 120-240V, 50-60 HZ	No Change
13	Offered model equipment should be certified by US FDA/European CE <b>(notified body)</b>	No Change